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# PATENT ABSTRACTS OF JAPAN

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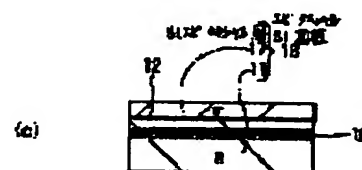
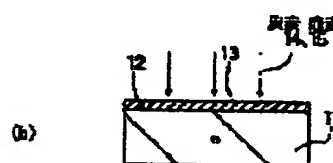
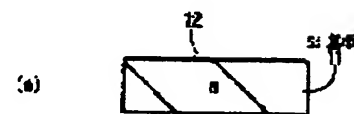
## (4) EPITAXIAL SILICON BOARD AND SOLID-STATE IMAGE PICKUP DEVICE AND MANUFACTURE THEREOF

(7)Abstract:

PROBLEM TO BE SOLVED: To provide an epitaxial Si board wherein metal impurities are effectively removed from an Si epitaxial layer and a solid-state image pickup device of less white dot defects.

SOLUTION: After carbon 14 is subjected to ion implantation in an Si board 11 at a dose amount of  $5 \times 10^{13}$  atomic cm<sup>-2</sup> or more and oxygen 15 is subjected to ion implantation at the same amount of the carbon 14 or more, an Si epitaxial layer 17 is formed and an epitaxial Si board 18 is manufactured.

A compound of the carbon 14 and the oxygen 15 is formed in the Si board 11 and becomes a getter sink, metal impurities are effectively removed from the Si epitaxial layer 17 and a solid-state image sensing device formed in the epitaxial Si board 18 has less white dot defects.



## GAL STATUS

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